# FIRST PRINCIPLES OF PHILOSOPHY.

G R III
BRITISH MUSEUM

# FIRST PRINCIPLES

# OF

# PHILOSOPHY.

230/l23

FOR THE USE OF STUDENTS.

By JOHN BRUCE, A. M.

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OF EDINBURGH.

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THE Firſt-Philoſophy or Logic Claſs, in the Univerſity of Edinburgh, is placed, in the Academical courſe, immediately after the ſtudy of the Languages.

Logic was originally formed an Art without Science. The treatiſes on this ſubject (Lord Bacon's excepted) have been limited to commentaries on the Ancient Syſtems, or to detached Eſſays on

Metaphyſics and Criticiſm. Hence the preſent imperfect ſtate of this Art, compared with the other branches of Knowledge.

To remedy this defect, Logic is to be conſidered as the comprehenſive Science, which explains the method of diſcovering and applying the Laws of Nature. Sir Iſaac Newton explained the Laws of the Material Syſtem, by reaſoning from obſervation and experiment. His diſcoveries ſhew the progreſs of the Human Mind, in obſerving and applying the Laws of Body. The ſame method will aſcertain the general Laws of the Human Mind, in the ſucceſsful ſtudy of Nature, and render the knowledge of them, the Rudiments and Firſt Principles of all Philoſophy.

The ſubject divides itſelf into two branches.

I. The Science of obſerving the Laws of Nature.

This forms the Elementary courſe of Philoſophy, in which are explained, the Natural Hiſtory of the faculties of the Human Mind, or the means of obſervation; the method of applying them for the purpoſes of Diſcovery; and the foundations of the Sciences and Arts.

On theſe ſubjects, the Students, by frequent examinations, are habituated to compoſition.

II. The application of the Science of Obſervation to the Study of Nature.

This forms a Courſe of Lectures for more advanced Students, in which are explained, the great characters of the Hiſtory of Nature; of the Sciences which diſcover its Laws; of the Arts which theſe Sciences improve; and the Elements of Civil Hiſtory, connected with the Hiſtory of Philoſophy.

This introduction to Study, is intended to lay open a view of the proper ſubjects of inquiry and information, that the Students may be enabled to ſelect the articles, which are ſuited to their Genius, Taſte, and Buſineſs in Life.

The outlines only of the Lectures, with the neceſſary definitions, are printed, as they are intended chiefly for the Students who are to hear them explained.

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# FIRST PRINCIPLES
# OF
# PHILOSOPHY.

## INTRODUCTION.

## I.

## Of Philoſophy.

### I.

### *Origin and Object of Philoſophy.*

PHILOSOPHY is derived from the obſervation of Nature.

Its object is to examine the properties and relations of her works, and to diſcover the laws which they follow.

The character of its ſubjects neceſſarily determines its general departments.

## 2.

## *General departments of Philoſophy.*

LOGIC, or General Philoſophy; which treats of the method of obſerving and applying the laws of Nature.

PHYSICS; which treat of the laws of material objects.

ETHICS; which treat of the actions of mankind.

The ſubdiviſions in theſe departments are termed Sciences.

3.

### 3.

### *Sciences.*

The knowledge of the laws of Nature, in any general or particular department, conſtitutes a ſcience.

There are many general terms which muſt be explained, as the language of all the ſciences : ——

Theſe terms deſcribe the progreſs of the human mind, in diſcovering the laws of Nature, and have a marked relation to each other.

Phenomenon, — any appearance or fact in Nature.

Effects and Cauſes. Effects,— the changes of phenomena leading to acting powers, or — Cauſes.

Philoſophical Arrangement, — claſſing phenomena, effects and cauſes, by their qualities and relations.

Induction,—inferences of the human underſtanding from Philoſophical arrangements.

Law of Nature,—the rules by which Nature acts, diſcovered by induction from obſervation and experiments.

Principles,——maxims deduced from the laws of Nature, to expreſs their purpoſe, department, and tendency.

Theory,—the application of the laws of Nature to explain particular phenomena.

Hypotheſis,—ſuppoſing a general quality, and reſting the evidence of its exiſtence on its apparent fitneſs to account for phenomena.

The end of Science is to create, and to improve, the Arts.

## 4.

### *Arts.*

An Art is the application of the laws of Nature to ſome uſeful purpoſe in life: ——

The objects of the Arts furniſh a ſimple diviſion of them.

Fine arts, — pleaſure.
Mechanical arts, — utility.
Liberal arts, — knowledge.

## II.

## Of the Firſt Principles of Philoſophy.

### 1.

### *Object of the Firſt Principles of Philoſophy.*

The object of the Firſt Principles of Philoſophy is to explain the method of diſcovering the laws of Nature, by obſervation of phenomena, and of applying theſe laws to the uſeful and elegant Arts.

The Firſt Principles of Philoſophy divide themſelves into two parts :——

1. The method of obſerving and diſcovering the laws of Nature.
2. The application of this method to the proper ſubjects of Philoſophical inquiry and knowledge.

## 2.

### *General Arrangement.*

PART FIRST comprehends the following Sciences:

1. PNEUMATOLOGY; or, The Science that explains the Natural Hiſtory of the Powers and Faculties of the Human Mind.

2. LOGIC; or, The Science that explains the method of directing

our faculties in obſerving and applying the laws of Nature.

3. METAPHYSICS; or, The Science that explains the foundations of the other Sciences and Arts.

PART SECOND comprehends the following Articles:

1. APPLICATION of the Firſt Principles of Philoſophy to the ſtudy of Nature.

2. The HISTORY of Philoſophy.

# FIRST PRINCIPLES OF PHILOSOPHY.

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## PART I.

### *General Arrangement.*

THE Firſt Principles of Philoſophy direct to the method of obſerving and ſtudying Nature.

The ſtudy of Nature requires a knowledge of the faculties of obſervation, of the method of directing them, and of the general characters of the phenomena they are to diſcover.

The Sciences of Pneumatology, Logic, and Metaphyſics, furniſh theſe requiſites.

They are the natural introduction to the ſtudy of the other Sciences and Arts.

I.

# I.

# PNEUMATOLOGY.

## INTRODUCTION.

### I.

### *Nature and Progreſs of the Science.*

The Science of Pneumatology ariſes from the Natural Hiſtory of the Powers and Faculties of the Human Mind.

They are the inſtruments employed in the obſervation of the phenomena and laws of Nature.

The laws of this Science are not to be read from abſtract Metaphyſics and Phyſiology, but to be deduced, by obſervation and experiment, from the natural hiſtory of the human mind and body.

Progreſs of the Science ſlow and imperfect——

—among the ancients.

—among the moderns.

## 2.

### *Arrangement.*

Pneumatology comprehends an analyſis of the following articles.

1. The general phenomena of mind, as a department of Nature, diſtinct from body.

2. The ſources of Human Knowledge: —— Senſation, — Underſtanding, — Conſciouſneſs.
3. The Will.
4. The Moral Faculty.
5. The Emotions, Paſſions, and Affections.
6. The Reflex Senſes.
7. Theory of the Mind.

# CHAP. I.

## Of Mind as a department of Nature.

### SECT. I.

### *Diſtinctions in Nature.*

The firſt effort of obſervation diſtinguiſhes the works of Nature into the claſſes of Body or Matter, and of Mind or Intelligence.

Body or Matter is diſcovered by obſervation of its qualities.

Matter exhibits primary and ſecondary qualities.

Primary qualities deſcribe Matter:

ter: ——Solidity,—Extenſion,—Diviſibility, &c.

Secondary qualities refer to our Senſations: —— Heat, — Cold, — Flavour, — Sound, &c.

Mind or Intelligence is characteriſed by obvious and general attributes: ——

Conſciouſneſs,
Volition,
Reaſoning, &c.

## SECT. II.

### *Diſtinctions in Science.*

The departments of Matter and Mind furniſh ſubdiviſions, which become the ſubjects of particular Sciences:

Body : ——

Mechanics, — the Science that explains the general laws of Body.

Chymiſtry, — the Science that explains the intimate properties of Body.

Phyſiology, — the Science that explains the reaſons of Nature in the ſtructure and arrangement of Bodies.

Mind : ——

Pneumatology, — the Science that explains the phenomena of Mind.

Natural Logic, — the Science that explains the method of obſerving and diſcovering the laws of Nature.

Ethics, — the Science that explains the Principles of Human Conduct.

Natural Theology, — the Science that explains the Attributes of Deity.

## SECT. III.

### *Principles.*

1. Mind and Body have different laws.

2. The phenomena and laws of the one do not explain the phenomena and laws of the other.

3. They are different departments in Nature.

Philoſophers have attempted to

explain the phenomena of Mind by thoſe of Body, and many of the phenomena of Body, by abſtract ſpeculations reſpecting Mind.

Review of the hypotheſes on theſe ſubjects.

## CHAP. II.

## Of the ſources of Human Knowledge.

The ſources of Knowledge in the Human Mind can be diſcovered only from the Natural Hiſtory of Phenomena.

They may be analyſed under the titles of Senſation, Underſtanding, Conſciouſneſs.

### SECT. I.

### *Senſation.*

The intimations which the Human

man Mind receives from the impreſſion or agency of objects external to itſelf, are uſually termed *Senſations*.

Senſations are accompanied with perceptions of objects, and of their relations.

The Natural Hiſtory and Anatomy of the Human Body diſcovers the brain and nerves to be the organs in the animal œconomy, on which our ſenſibility to objects external of the Mind depends.

Phyſiology deduces the reaſons of Nature in fitting theſe organs to convey information to the Human Mind.

Betwixt our perceptions and the external exciting cauſe there exiſts no manner of reſemblance.

Senſations are external and internal.

The particular diſtinctive Senſations are five: Touch, Taſting, Smelling, Hearing, and Seeing.

## Touch.

Natural Hiſtory diſcovers that the whole animal frame is an organ of Touch.

Phyſiology not only explains the reaſons of Nature in this arrangement, but the reaſons of the particular ſenſibility in the finger, which is conſidered as the organ of Touch.

The perception of the primary and ſecondary qualities of Body by the ſenſation of Touch, is a law of Nature diſcovered by obſervation and experiment.

### Taſting.

Natural Hiſtory and Phyſiology——

- —of the organ and medium of Taſting.
- —of the ſenſations and perceptions of Taſting.

The perception of a ſecondary quality of Body by the ſenſation of Taſting, is a law of Nature diſcovered by obſervation and experiment.

## Smelling.

Natural Hiſtory and Phyſiology——

—of the organ and media of Smelling.

—of the ſenſations and perceptions of Smelling.

The perception of a ſecondary quality of Body by the ſenſation of Smelling, is a law of Nature diſcovered by obſervation and experiment.

## Hearing.

Natural Hiſtory and Phyſiology——

—of the Ear.

—of the mechaniſm of the Voice, as articulate and inarticulate.

The more general media of Sounds are elaſtic Bodies.

Analyſis——

—of the principles on which the production and propagation of Sounds depend.

—of Reflected Sounds.

—of the Velocity of Sounds.

—of the ſenſations and perceptions of Hearing.

The pleaſure from Sounds ariſes from their connection with the Paſſions and Imagination.

The phenomena which excite this pleaſure are the foundations of the art of Muſic.

The perception of a ſecondary quality of Body by the ſenſation of Hearing, is a law of Nature diſcovered by obſervation and experiment.

## Seeing.

Natural Hiſtory and Phyſiology——

—of the Eye.

—of the variations from its ordinary ſtructure.

Analyſis——

—of Light, the medium of Viſion, — Refraction, — Reflection.

—of the ſenſations and perceptions of Seeing, as proper and acquired.

Colour and viſible extenſion are proper to the organ.

Solid dimenſions and diſtances are acquired.

The motion of the Eyes is parallel.

We ſee objects ſingle, though we employ a double organ.

The image is inverted on the retinæ of the Eyes, but we ſee the object erect.

The pleaſures of Sight are connected with the Paſſions and Imagination.

The phenomena which excite and continue theſe pleaſures, are the foundations of ſeveral of the Arts.

The perception both of primary and ſecondary qualities by the ſenſation of Seeing, is a law of Nature diſcovered by obſervation and experiment.

The independent exiſtence of the objects of our Senſations has been queſtioned.

Origin and effects of this ſcepticiſm.

## SECT. II.

### *The Underſtanding.*

The Underſtanding is a general expreſſion, denoting the powers and faculties of the human mind which are employed in the attainment of knowledge.

It is characteriſtically different from Senſation.

Its offices are, to obſerve, to compare, and to arrange phenomena, and to infer what are the laws of Nature.

Its powers ſeem to have a natural ſucceſſion and dependence on each other.

They may be delineated under the titles of Memory, Abſtraction, Imagination, Intuition and Reaſoning, and Judgement.

The hiſtory of theſe faculties will afford inductions, deſcriptive of the laws of the Underſtanding.

Phyſiologiſts term Memory, Imagination, and Judgement, internal ſenſes.

## Memory.

The power of recalling our paſt perceptions.

The Memory is aided by the relations of time, place, ſimilarity, contraſt, &c.

The obſervation of theſe relations forms the Science of Memory.

The laws of this Science, if adopted as rules, ſeem to afford an art of Memory, or artificial Memory.

## Abſtraction.

The power of conſidering objects, or the qualities of objects, apart from the other objects and qualities with which they are found to be connected in Nature.

Abſtraction ſeems to be a faculty peculiar to the human mind.

Abſtraction is the ſource——
- —of Philoſophical Arrangement.
- —of Generalization.
- —of Science.
- —of Theory.

## Imagination.

The power of aſſembling objects, qualities, and circumſtances, and forming them into a new aggregate, whether fictitious or real, by a different combination.

Imagination borrows from the faculties of Memory and Abſtraction; and, on that account, its place in the hiſtory of the Underſtanding is ſubſequent to both of them.

Imagination may be diſtinguiſhed into Active and Paſſive.

Active Imagination, or Genius, in ſubſervience to the real properties and relations of phenomena, has directed to new and undiſcovered arrangements of them.

In ſubſervience to our Senſations and Paſſions, it can extend beyond the real appearances of Nature, and combine objects, ſcenes, and deſcriptions, fitted to excite the finer feelings, and to intereſt the heart.

The Imagination, in the firſt of theſe views, ſhewn to be the ſource of diſcoveries in the Liberal Sciences.

In the ſecond, of brilliant productions in the Fine Arts.

Paſſive Imagination, or Taſte, is addreſſed and refined by ſtudying the productions of Active Imagination, or Genius.

Sources of the pleaſures of Imagination analyſed, by an enumeration of the claſſes of objects which excite theſe pleaſures.

Relation of the Imagination to the Sciences and Fine Arts, explained.

## Intuition and Reaſoning.

Intuition,—the power by which the Mind perceives the immediate agreement or diſagreement of its objects, and of their relations.

Reaſoning,—the power by which the Mind diſcovers the more diſtant connection of objects and relations, by introducing an intermediate object and relation.

Intuition,—the foundation of axioms;

Reaſoning,—of demonſtrations.

### Judgement.

The inferences of the Mind produced immediately by Intuition, or remotely by Reaſoning.

### Laws of the Underſtanding.

1. The Human Underſtanding acquires its perceptions of external objects by the media of ſenſation, which do not reſemble theſe perceptions.

2. The Underſtanding can arrange its objects and perceptions

by their ſpecific qualities and relations.

3. The Underſtanding can diſcover truth by intuition and demonſtration.

## SECT. III.

### *Conſciouſneſs.*

Conſciouſneſs is the perception which the Mind has of itſelf in all its operations.

Conſciouſneſs ——
- —of Identity.
- —of Senſation.
- —of Intelligence.
- —Of Moral Principles.

Do we retain our conſciouſneſs, as in ſleep, when apparently inſenſible?

## CHAP. III.

## Of the Will.

### SECT. I.

### *Characters of this Faculty.*

The Will is the faculty by which the mind chuſes or rejects its objects.

The Will is poſitive or negative.

The natural progreſs of the Will ſeems to be, from deliberation, to deciſion, and to action.

This progreſs, however, is determined or counteracted by a variety of circumſtances, which, from their relation to the Will, have been termed *Motives*.

## SECT. II.

### *Motives.*

The circumſtances which addreſs and influence the Will are termed *Motives*.

The natural hiſtory of Motives, comprehended under the following titles.

### Propenſities.

Tendencies which ſpring from

the conſtitution of human nature.

Propenſities are frequently prior to experience.

In ſome caſes Propenſities are confirmed by experience, in others created by it.

Propenſities explained under the following titles.

Propenſities to ——
—Activity.
—Pleaſure.
—Imitation.
—Emulation.

### Opinions.

Deciſions founded on apparent probability, or traditional prejudices, and confirmed by habit.

The characters of Opinions, diverſified by the operation of the following cauſes ——

—Temper.
—Capacity.
—Education.
—National Prejudices.

### Inductions.

Accurate inferences of the underſtanding, after examining objects, and their relations in Nature.

Inductions influence the Will—
—from the degrees of certainty with which they are formed.
—from the pleaſure or pain which they afford.

## Sentiments.

Habits of thinking, ariſing from the permanent effects produced by emotions, paſſions, and affections, upon the mind *.

Sentiments are diverſified by the ſenſe of——

—Morality.
—Religion.
—Delicacy.
—Character.

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* See chap. 5.

## SECT. III.

### *Application of Motives.*

The application of Motives explains the nature of actions, as moral or immoral.

This application has produced the hypotheſes reſpecting Liberty and Neceſſity.

Principles of the Fataliſt and Free-thinker compared.

The general laws of the Will deduced, from the preceding claſſes of Motives.

## SECT. IV.

### *Laws of the Will.*

1. The Will acts from motives, which regard the ſafety and enjoyments of our Nature.

2. The determinations of the Will which give an exerciſe to the beſt faculties and diſpoſitions of the Mind, afford the greateſt ſafety and enjoyment to the individual.

3. The determinations of the Will which direct our beſt faculties and diſpoſitions to the good of others, give the greateſt ſafety and enjoyment to mankind.

The laws of the Will direct to the ſcience of Moral Philoſophy.

CHAP.

# CHAP. IV.

## Of the Moral Faculty.

### SECT. I.

### *Objects of the Moral Faculty.*

The objects of the faculty of moral approbation and diſapprobation, are the diſpoſitions and actions of intelligent Beings.

The moſt general deſcription of the objects of moral approbation, may be comprehended under the titles of Probity, Juſtice, and Benevolence.

Probity,—the diſpoſition to acknowledge the rights of mankind.

Juſtice,—the diſpoſition to maintain the rights of mankind.

Benevolence,—the diſpoſition to improve the rights of mankind.

The moſt general deſcription of the objects of moral diſapprobation may be comprehended under the titles of Deceit, Injuſtice, Malevolence.

Deceit,—the concealed violation of the rights of mankind.

Injuſtice,—the open violation of the rights of mankind.

Malevolence,—deceit and injuſtice united with the paſſion of revenge.

Theſe objects addreſs both the feelings and the underſtanding.

## SECT. II.

### *Law of Morality.*

The law of Morality conſiſts in the practice of that conduct which the Moral Faculty approves.

The diſpoſitions and actions which have the characters of probity, juſtice, and benevolence, are approved of by the Moral Faculty.

The obſervation of the law of Morality conſtitutes the chief good, or the happineſs of mankind.

The happineſs or good attending the exerciſe of the Moral Faculty, and the miſery or evil which follows the neglect of it, are the ſanctions of the moral law, and have been termed Moral Obligation.

Maxims deduced from the moral law have been termed Moral Principles.

The application of the moral law to explain particular actions or caſes, has been termed the Theory of Morality, or of Moral Sentiments.

The law of Morality applies to individuals, to citizens, and to nations.

When it is traced in its application to individuals, it is the ſcience of particular Ethics, or Moral Philoſophy.

When it is traced in its application to citizens, it is the ſcience of particular juriſprudence, or the Laws of Nature.

When it is traced in its application to nations, it is the ſcience of general juriſprudence, or the Laws of Nations.

## SECT. III.

### *Theories.*

The objects of Ancient and Modern Moraliſts have been different.

The Ancients were employed in ſhewing the foundations of Virtue, and in ſtating the great diſtinction of good and evil, happineſs and miſery:

The Moderns, in aſſigning the principles from which our approbation of Virtue, and the diſtinctions of good and evil, happineſs and miſery, proceed.

Comparative eſtimate of theſe Theories.

## CHAP. V.

## Of the Emotions, Paſſions, and Affections.

### SECT. I.

### *Nature of Emotions, Paſſions, and Affections.*

Emotions are pleaſant or painful mental feelings ſimply.

Paſſions ariſe from pleaſant or painful feelings, and are accompanied with ſtrong deſire or averſion.

Affections are permanent feelings, in conſequence of reflection on the real or imagined excellence of a paſſion, or its object.

## SECT. II.

### *Exciting cauſes of the Emotions and Paſſions.*

The general claſſes of cauſes which excite the Emotions and Paſſions referred to the following titles.

The Animal Appetites.
The Senſes.
The Imagination.
Sympathy.
Contemplation of Character.

## SECT. III.

### *Diviſion of the Paſſions.*

The different ſciences offer diviſions of the Paſſions correſponding to their objects, as ſciences.

Direct,——Indirect.
Selfiſh,——Social.
Active,——Depreſſing.

The Pneumatologiſt furniſhes the firſt, becauſe he traces the natural hiſtory of the Paſſions.

The Moraliſt, the ſecond, becauſe he traces the influence of the Paſſions on conduct.

The Phyſiologiſt, the laſt, becauſe he limits his attention to the influence of the Paſſions on the animal œconomy.

An analyſis of the particular Paſſions comprehended in each of theſe claſſes, will enable us to examine their comparative value.

## SECT. IV.

### *Diviſion of the Affections.*

As the Affections chiefly regard intelligent natures, the moſt comprehenſive diviſion of them has been offered in the ſcience of Ethics.

Selfiſh Affections.
Benevolent Affections.
Mixed Affections.

An analyſis of the particulars comprehended in theſe claſſes will explain their utility.

## SECT. V.

### *Language of the Paſſions.*

The Paſſions have natural and univerſal ſigns.

Modulations of the voice.
Geſtures *, &c.

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* See Logic, chap. 3. § 1.

The expreſſions of the Paſſions examined——

—in the arts of ſculpture and painting.

—in theatrical expreſſion, &c.

CHAP.

## CHAP. VI.

## Reflex Senſes.

### *Nature of Reflex Senſes.*

The Reflex Senſes have fixed claſſes of objects.

They do not ſeem to depend on any perfection in the organs of ſenſe, that can be detected by anatomy.

They receive refinement and bias from the underſtanding.

This refinement conſtitutes the moſt perfect taſte [*].

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[*] See Metaphyſics, chap. 3. § 2.

The moſt diſtinguiſhed of theſe Senſes are——

—Melody and Harmony.
—Beauty.
—Sublimity.
—Ridicule.

## SECT. I.

### *Melody and Harmony.*

Melody ſeems to conſiſt in the agreeable effect of ſimple ſounds.

Harmony ſeems to conſiſt in the agreeable effect of meaſured ſounds.

The pleaſures from Melody almoſt entirely depend on expreſſion, which is produced, in conſequence of the power of ſounds to repreſent and excite paſſions in a perſon poſſeſſed of a muſical ear.

The pleaſures from Harmony are chiefly felt from the parts of muſic in concert.

Influence of Taſte in refining the pleaſures ——

— of Melody.

— of Harmony.

Characters of the ſenſe of Muſic.——

— of the Ancient Muſic.

— of the Modern Muſic.

## SECT. II.

### *Beauty.*

The claſſes of objects which addreſs the ſenſe of Beauty comprehended under the following titles.

—Natural objects and arrangements in which there is a juſt proportion of figure, colour, motion, expreſſion, &c.

—Artificial objects and arrangements that are poſſeſſed of ſymmetry and utility, &c.

—Sentiments which by ſympathy connect the more gentle paſſions with the love of virtue.

—Deſcriptions furniſhing the mind with an immediate perception of theſe objects.

## SECT. III.

### *Sublimity.*

The claſſes of objects which excite the ſenſe of Sublimity, comprehended under the following titles.

—Natural objects and arrangements which have the qualities of great, vaſt, dark, &c.

—The depreſſing paſſions of fear, &c.

—Sentiments which by ſympathy unite the influence of the more violent paſſions with the ſeverer virtues.

—The juſt deſcription of theſe objects.

## SECT. IV.

### *Ridicule.*

The ſenſe of Ridicule general, and its objects excentric.

The following claſſes of objects addreſs it.——

—Incongruous Natural or Artificial objects and arrangements.

—Abſurd Reaſonings.

—Affected Sentiments.

—The lively Deſcription more forcibly perhaps than the actual exhibition of its objects.

## CHAP. VII.

## Theory of the Mind.

### SECT. I.

### *Nature of Theory.*

A Theory is an application of the laws of Nature to explain particular phenomena.

## SECT. II.

### *Theory of the Human Mind.*

The theory of the Human Mind is deducible from the general qualities which have occaſioned the preceding claſſes of its perceptions.

Theory——

—of the ſources of Knowledge: Senſation, Underſtanding, Conſciouſneſs.

—of the Will.

—of the Moral Faculty.

—of the Emotions, Paſſions, and Affections.

—of the Reflex Senſes.

The union of theſe particular theories forms the general theory of the Human Mind.

II.

## II.

## LOGIC.

### INTRODUCTION.

### I.

### *Nature and Progreſs of the Science.*

Logic was originally formed an art without ſcience.

It ſeems to have taken its character from the Greek literature, which preceded their ſcience.

The definitions of the art, and its numerous and different diviſions left by the ſects, will illuſtrate its ancient ſpirit and progreſs.

It conſiſted in artificial claſſification, and in reaſoning by fixed forms of argument.

The means it employed were categories and ſyllogiſms.

The ſchools retained the definitions and diviſions of the ancient art, but debaſed it, by introducing their own nominal and obſcure diſtinctions.

When the ſciences of Natural Philoſophy and Hiſtory were creating, the pernicious tendency of the Logic of Art was perceived; and from this circumſtance, the ſcience which could reform it has been neglected or contemned.

The definitions and diviſions of the art offered by the moderns, will exhibit its preſent ſtate and character.

Logic, conſidered as a comprehenſive ſcience, is to explain the progreſs of the human mind in obſerving and applying the laws of Nature.

Examples of ſucceſsful diſcovery will ſhew the method of diſcovering, and of interpreting the laws of Nature.

The ſteps in this progreſs are laws in the ſcience of obſerving Nature, or of Natural Logic.

The means employed are Analyſis and Induction.

## 2.

### *Arrangement.*

Logic comprehends the following articles.

1. Logic, as an Art.
2. Logic, as a Science.
3. Principles of the Science of Logic, deduced from Language.
4. Rules for ſtudying Nature.
5. Sophiſtry.

CHAP.

# CHAP. I.

## Of Logic, as an Art.

### SECT. I.

### *Syntheſis.*

Logic, as an Art, originated in the method of Syntheſis.

The human mind reaſons from rules to particular caſes, or from particular caſes to the formation of rules.

When rules become general, they obtain the name and authority of Principles.

Reaſoning from principles to particular caſes is the method of Syntheſis.

General Principles muſt be ſelf-evident or demonſtrated truths.

The following claſſes of Principles explained.

—Simple Perceptions.

—Axioms.

—Laws of Nature.

The uſes of General Principles in the different ſciences analyſed in——

—Mathematics.

—Phyſics.

—Natural Hiſtory.

—Ethics.

Artificial and aſſumed General Principles produced the Ancient Art of Logic, or the Syllogiſtic Art.

## SECT. II.

### *Syllogiſtic Art.*

When mankind began to reaſon on the phenomena of Nature, they were ſolicitous to abſtract, and they formed general propoſitions from a limited obſervation.

Though theſe propoſitions were aſſumed, they were admitted as true.

They were not examined by appeals to Nature, but by compariſon with other propoſitions.

They inſenſibly acquired the authority of Principles.

The tranſition from partial abſtractions to general propoſitions, and the adopting of theſe propoſitions as firſt principles, common to all early and imperfect inquirers.

Peripatetic Philoſophy.

School Philoſophy.

Ariſtotle furniſhes the two great branches of the Art of Ancient Logic, the Categories, and Analytics or Syllogiſms.

The Categories were artificial titles, under which all knowledge was to be arranged.

They were ten in number, viz. Subſtance, Quantity, Quality, &c. and were attended with the Predicables.

The manner in which both were applied, will explain their character and uſes.

Syllogiſms were artificial forms of argument, by which the mind was to reaſon in the diſcovery of truth.

They were deducible from a few firſt principles.

They conſiſted of Logical propoſitions.

A propoſition was any affirmation or negation of the mind.

The affirmation or negation was the quality of the propoſition.

Its comprehending a particular or an univerſal, its quantity.

Mechaniſm of Logical propoſitions.

—The Subject.

—The Predicate.

—The Copula.

The Syllogiſtic Art conſiſted in uniting propoſitions to form an argument.

Regular Syllogiſms comprehended three propoſitions.

—The Major.
—The Minor.
—The Concluſion.

The mechaniſm of the figures and modes of the Syllogiſm diſcovers ſingular invention and art.

Irregular Syllogiſms conſiſted of leſs or more than three propoſitions.

The Syllogiſtic Art was without ſcience.

It guided the reaſonings of Philoſophers for two thouſand years, and is a venerable monument of ancient genius.

## SECT. III.

### *Abuſes and Uſes of the Syllogiſtic Art.*

Abuſes :——

—1. It corrupted the taſte for Philoſophical invention, by placing Philoſophy in Abſtraction, and withdrawing it from the obſervation of Nature.

—2. It created a reliance on Principles which originated in the hypotheſes of Philoſophers, not in the laws of Nature.

—3. It made truth the reſult of the forms of argument, not of ſcientific evidence.

Hiſtorical account of the operation of theſe abuſes in retarding the progreſs of knowledge.

Hiſtorical account of the circumſtances which have in ſome inſtances deſtroyed, in others limited, their operation.

Uſes :——

—1. It is fitted to reduce theories to ſimple propoſitions and arguments.

—2. It is fitted equally to ſupport, and to detect ſpecious opinions in buſineſs.

Theſe uſes illuſtrated by examples.

CHAP.

## CHAP. II.

## Of Logic, as a Science.

### SECT. I.

### *Analyſis and Induction.*

Logic, as a Science, originates in the methods of Analyſis and Induction.

The method of Analyſis is the method of Nature.

It proceeds from the obſervation of particular phenomena to the diſcovery of the real arrangements of Nature, and examines arrangements, by bringing back obſervation to particular phenomena.

Induction infers from the arrangements of Nature what are laws of Nature, and applies them as Rules and Theories to explain new phenomena.

The analyſis of any part of Nature is equivalent to its Natural Hiſtory.

An induction from an analyſis of any part of Nature is equivalent to its Natural Philoſophy.

The riſe of Analyſis and Induction, and their influence in improving the ſcience of obſerving Nature, illuſtrated by the following circumſtances:

Origin of Taſte in Italy.

Progreſs of Mathematics and Natural Philoſophy.

The *novum organum* of Lord Bacon *.

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* See Part 2.

## SECT. II.

### *Science of Analyſis.*

The ſcience of Analyſis conſiſts in diſcovering the arrangements of Nature.

It proceeds by Compoſition and by Decompoſition.

Compoſition traces objects by their qualities, to the claſſes and relations which they hold in Nature.

Decompoſition examines claſſes and relations which are apparently general, by reducing them to the ſimple phenomena which they comprehend.

Compoſition ——
- —Individual.
- —Species.
- —Genus.

Decompoſition ——
- —Genus.
- —Species.
- —Individual.

Compoſition and Decompoſition of phenomena furniſh the law of Analyſis, in the ſcience of obſerving Nature.

The ſpecific characters of Analyſis explained in ——
- —Mathematics.
- —Natural Philoſophy.
- —Natural Hiſtory.
- —Ethics.
- —the Fine Arts.

SECT.

## SECT. III.

### *Science of Induction.*

The ſcience of Induction conſiſts in deducing from the claſſes of phenomena aſcertained by analyſis, what are the laws of Nature in each of them.

The phenomena which afford an Induction deſcriptive of a law of Nature, muſt be ——

—Obvious.
—Uniform.
—Univerſal.

The means of aſcertaining theſe characters of phenomena, are obſervation and experiment.

Experiments take their character from the phenomena to which they are directed, and are ſpecific to every ſcience.

Deſcription of the experiments proper to——

—Natural Hiſtory.
—Natural Philoſophy.
—Pneumatology.
—Ethics.

The ſubjects which admit of Induction are the whole ſciences, and the uſeful arts, which they create.

Induction in every ſcience takes its characters of more or leſs poſitive——

—from the nature of the phenomena which the ſcience explains.

—from the degrees of accuracy, with which experiments continue the chain of phenomena, and of reaſoning.

Sir Iſaac Newton gave an accurate analyſis and induction of the laws of the material ſyſtem, and inferred from them the following axioms.

1. The cauſes only are to be admitted into any ſcience, which are true, and ſufficient to explain phenomena.

2. Effects of the ſame kind may be aſcribed to the ſame cauſes.

3. The qualities of phenomena diſcovered by experiments, may be conſidered univerſal qualities of phenomena of the ſame kind *.

Theſe axioms ſhewn to be univerſal axioms for the ſtudy of Nature.

Analogy has frequently been confounded with Induction.

Analogy ſignifies reaſoning from reſemblances which ſubſiſt betwixt phenomena; Induction, from the ſameneſs of phenomena.

Comparative view of the effects of Analogy and Induction.

The following general laws of Inductive Philoſophy explained, by applying them to the ſubjects of the different ſciences.

1. Induction reaſons from the arrangements of analyſis by experiments, which continue the chain of

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* Newt. Princip.

of phenomena, to the moſt general facts and laws of Nature.

2. The evidence of the truth of an induction, muſt be the obvious means which connect particular phenomena and arrangements with general facts and laws of Nature.

3. The laws of Nature diſcovered by Induction, muſt be the rules and theories which form, improve, and explain the Arts.

## SECT. IV.

### *Relation of the Science of Logic to the other Sciences.*

The ſcience of Natural Logic is the mean of examining the whole of Nature.

The analyſis and induction of which it conſiſts, have created and improved the ſciences of Natural Hiſtory and Natural Philóſophy.

The ſciences to which Analyſis and Induction have not been applied remain defective *.

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* See part 2.

# CHAP. III.

## Principles of the Science of Logic, deduced from Language.

## SECT. I.

### *Origin and Fabric of Language.*

Language denotes the whole means by which mankind expreſs their thoughts :——

—Natural.

—Artificial.

Natural Language has fixed claſſes of ſigns :——

—Modification of Features.

—Geſtures.

—Modulations of the Voice.

The arts employed by Language furniſh the following claſſes.

Words.
Mute Signs.
Written Characters.

The ſcience of Grammar, which analyſes theſe arts, treats of the parts of Speech, and of their application.

## SECT. II.

### *Science of Logic and Language.*

Logic is the ſcience of obſerving Nature.

Language furniſhes ſigns for every ſtep in this obſervation.

Logic and Language have the

connection of thought, and the expreſſions of thinking.

They are ſubjects of Analyſis in their ——

—Compoſition.
—Decompoſition.

Subjects of Induction, by furniſhing phenomena, which are——

—Obvious.
—Uniform.
—Univerſal.

The branches of Natural Logic, viz. Analyſis, Induction, and General Arrangement, have their correſponding ſigns in the ſcience of Grammar.

## SECT. III.

### *Theory of Analyſis.*

Philoſophical Analyſis comprehends the progreſs of the Human Mind in obſerving and claſſing objects, by their nature and obvious qualities.

The parts of Language exhibiting ſigns for this progreſs, belong to the claſſes of Subſtantives and Adjectives.

By Induction.

From Proper Nouns and Pronous,——

—Individual objects.

From Common Nouns,——

—Particular Claſſes, or Species.

From Adjectives,——
—Qualities of Objects, and of Claſſes.

From Abſtract Nouns,——
—General Claſſes, or Genera.

## SECT. IV.

### *Theory of Induction.*

Philoſophical Induction explains the operations of the Underſtanding, in deciding on the laws of Nature in individuals, and claſſes of objects.

Subſtantives, adjectives, verbs, and adverbs, furniſh ſigns for the ſubjects of judgement, and for the various methods of judging.

By Induction.

From Subſtantives and Adjectives,——

—The two firſt terms of Propoſitions.

From the Modes and Tenſes of Verbs,——

—The third term of Propoſitions.

From Adverbs,——

—The modification of the third term of Propoſitions.

## SECT. V.

### *Theory of General Arrangements.*

General Arrangements comprehend the method by which the known relations betwixt objects, and claſſes of phenomena, may be extended, in order to diſcover phenomena and laws of Nature which are univerſal.

Prepoſitions and conjunctions furniſh ſigns for continuing the relations betwixt names and propoſitions, in order to form a demonſtration or a deſcription.

By Induction.

From Prepoſitions,——

—The relations betwixt the parts of the ſame Propoſition.

From Conjunctions,——

—The relations betwixt different Propoſitions.

The principles of Natural Logic, deduced by theſe theories from ſyntax, as eſtabliſhed by univerſal grammar.

The analyſis and induction which have improved the ſciences of Natural Hiſtory and Philoſophy, are ſimilar to the analyſis and induction of Language and Logic.

# CHAP. IV.

## Rules for ſtudying Nature.

### SECT. I.

### *Character of Rules for the ſtudy of Nature.*

The rules which are fitted to direct in the ſtudy of Nature, muſt themſelves be laws of Nature, or practical inferences from them.

They can only be uſed as rules of art, when attended with a knowledge of the ſcience which has diſcovered them.

The laws of the ſcience of Logic have theſe characters.

They may be directed to the acquiſition of the Sciences, and to the practice of the Arts.

## SECT. II.

### *Arrangement of Rules for the ſtudy of Nature.*

The arrangement of rules for the ſtudy of Nature, muſt follow that of the laws, of which they are tranſcripts.

1. Rules for philoſophical ob-

ſervation and analyſis explained, as they regard——

—the phenomena of the different Sciences.

—the obſervation and experiments which apply to them.

—the ſyſtems which they are to decompoſe.

2. Rules for philoſophical arrangements explained, as they regard——

—the ſpecies and genera which compoſe Nature.

—the principles on which the hiſtories of Nature have been formed.

3. Rules for philoſophical induction explained, as they regard——

—the demonſtration of the laws of Nature.

—the application of the laws of Nature.

4. Rules for philoſophical theories explained, as they regard——

—the formation of theories.
—the diverſity of theories.
—the application of theories.

# CHAP. V.

## Of Sophiſtry.

### SECT. I.

### *Nature and Progreſs of Sophiſtry.*

Sophiſtry is the application of the method of Science, and of Argument, to eſtabliſh what is uncertain or falſe.

It ariſes from an imperfect knowledge of the faculties of the human mind, and of the ſubjects to which they can be directed.

The Ancient Sophiſts ſeem to have had an imperfect knowledge of the faculties of the human mind, and their Sophiſtry chiefly appears in their reaſonings.

The Modern Sophiſts ſeem to have an imperfect knowledge of the proper ſubjects of Philoſophy, and their Sophiſtry chiefly appears in their ſcience.

Sophiſtry may be divided into two great branches.

—Sophiſtry in Science.

—Sophiſtry in Argument.

## SECT. II.

### *Sophiſtry in Science.*

Sophiſtry in Science referred to the following claſſes of cauſes.

Obſcure Perceptions——
- —from the Senſes.
- —from the Underſtanding.

Incomplete Analyſis——
- —of Nature.
- —of Syſtems.

Artificial Arrangements——
- —by ſuppoſing Qualities.
- —by aſſuming Principles.

Falſe Inductions——
- —from the love of Abſtraction.

Hypothetical Theories——
—from the love of Syſtem.

## SECT. III.

### *Sophiſtry in Argument.*

Sophiſtry in Argument, or Reaſoning, referred to the following claſſes of cauſes.

—Ignorance of the relation ſubſiſting betwixt Logic and Language, or Obſervation and Reaſoning, and the ſigns of Obſervation and Reaſoning.

—The inaccuracies and ambiguities of Language.

Artificial Logic furniſhes names for the different ſpecies of Sophiſtry in Argument: ——

—Ignorantia Elenchi,
—Petitio Principii,
—Non cauſa pro cauſa,
—Fallacia accidentis,
——— diviſiones,
——— grammatica,
&c.

The ſcience of obſerving Nature applied as the proper means of preventing and correcting Sophiſtry in Science, and in Argument.

III.

# III.

# METAPHYSICS.

## INTRODUCTION.

### I.

### *Nature and Progreſs of the Science.*

The ſcience of Metaphyſics explains the foundations of the other Sciences and Arts.

The Sciences and Arts are created by the diſcovery of general facts in Nature.

General facts are diſcovered, by analyſing the qualities which diſtinguiſh one department from another, and the qualities which are common to the whole of Nature.

Theſe facts are the foundations of the Sciences and Arts.

Ancient Metaphyſics, or the ſcience of Univerſals,——

—Originated in artificial ſubtleties.

—Diſtinct from Phyſics and Mathematics.

—Neglected the obſervation of real phenomena.

—Exhibited a collection of abſtract conceptions regarding Nature, and the principles by which it was *ſuppoſed* to act.

Metaphyſics in the middle ages equally abſtruſe and removed from the obſervation of Nature.

Modern Metaphyſics have leſs aſſumed the ſpirit of ſcience than of party.

Parties have contended for ſpeculative opinions, not for diſcoveries, or uſeful knowledge.

The abuſe of this ſcience, an inducement to attempt an analyſis of its proper ſubjects.

## 2.

## *Arrangement.*

The ſcience of Metaphyſics comprehends the following articles.

1. Ontology.
2. The Science of Evidence.
3. The Art of Criticiſm.

# CHAP. I.

## Of Ontology.

### SECT. I.

### *Nature of Ontology.*

The Sciences are all directed to real phenomena, or exiſtences in Nature.

Ontology explains the moſt general conceptions which the Human Mind forms reſpecting theſe phenomena.

The knowledge of it is not intuitive,

tuitive, but the reſult of obſervation.

## SECT. II.

### *Of Subſtance.*

The Exiſtences which we perceive in Nature are Body and Mind.

The human faculties can diſcover nothing of the eſſences of Subſtance, but collect general facts from the obſervation of particular objects.

The idea of Subſtance is ſuggeſted by an aſſemblage of real qualities.

Theſe qualities are termed *Attributes*.

Subſtance ——
- —Material.
- —Immaterial.

## SECT. III.

### *Space.*

Space ſignifies ſimple extenſion, unconnected with Subſtance.

Space is ——
- —immoveable.
- —indiviſible.
- —unbounded.

Space is abſolute and relative.

Abſolute Space is the place of every exiſtence.

Relative Space, the ſituation of one exiſtence with reſpect to another.

## SECT. IV.

### *Duration.*

Duration is ſuggeſted to the Human Mind by the ſucceſſion of perceptions, whether of ſenſation or reflection.

Duration is abſolute and relative.

Abſolute Duration is independent of every other ſucceſſion.

Relative Duration refers to events in ſucceſſion.

The perception of Motion is

comprehended in the relation of Space and Duration.

Duration is meaſured by the relation which it admits of with extenſion.

Meaſures of Duration : ——

—Aſtronomical.

—Civil.

## SECT. V.

### *Quantity.*

Quantity ſignifies what is ſuſceptible of increaſe, diminution, and meaſure.

Quantity is the only object of ſcience which admits of a perfect meaſure; and it can be meaſured only by itſelf.

Quantity is divided into proper and improper.

Proper quantities are meaſured by quantities of the ſame kind.

Improper quantities are meaſured by quantities of a different kind.

Quantity is numbered and meaſured.

In number we abſtract from objects every quality but their individuality.

In meaſure, every quality but their extenſion.

Quantity numbered,——
—Arithmetic.

Quantity meaſured,——
—Geometry.

Quantity ſimply is the object of Pure Mathematics.

Quantity applied as the meaſure of material phenomena, is the object of Mixed Mathematics.

## SECT. VI.

### *Power.*

The conſcious activity of the Human Mind gives the conception of a Power.

The changes which we obſerve in the phenomena of Nature, and the aſſemblage of circumſtances uniformly conjoined with them, indicate Cauſes and Effects.

Cauſes and Effects.——

—Phyſical, appear in the fixed order of Nature.

—Moral, in intelligent natures.

—Final, in intention and deſign.

## SECT. VII.

### *Of Deity.*

All obſervation of Nature terminates in the diſcovery of the attributes of a Firſt Cauſe, or a Deity.

The attributes of Deity, or of a Firſt Cauſe, are indicated to man, by effects in the material and intelligent departments of Nature.

Phyſical Attributes :——
- —Power.
- —Unity.
- —Intelligence.

Moral Attributes :——
- —Juſtice.
- —Goodneſs.

SECT.

## SECT. VIII.

### *The Human Soul.*

The Human Soul poſſeſſes qualities diſtinct from, and apparently oppoſite to, all the known qualities of Body.

From the nature of the qualities of the Soul we infer its immateriality.

From the nature of theſe qualities, and from the moral attributes of the Deity, we infer its immortality.

Review——

—of theories on theſe ſubjects.

—of the facts in Nature.

## SECT. IX.

### *Inſtincts of the Brutes.*

Comparative view of the faculties of man, and of other animals, in the articles of ——

—Senſations.

—Intellects.

—Active Principles.

## CHAP. II.

## Science of Evidence.

### SECT. I.

### *Nature of Evidence.*

The means by which Truth is eſtabliſhed, are termed *Evidence.*

Truth ſignifies the perception of the Human Mind, reſpecting the reality of its objects, and of their relations.

Truth is the end for which Evidence is applied.

The ſcience of Evidence conſiſts in an analyſis of the different means which eſtabliſh Truth.

Theſe means conſtitute the different kinds of Evidence, and the application of them, the kinds of Truth.

## SECT. II.

### *Kinds of Evidence.*

Evidence deſcends from abſolute to probable.

Evidence ——
- —of Conſciouſneſs and Intuition.
- —of Senſation.
- —of Cauſe and Effect, or, of the Underſtanding, comprehending Teſtimony, &c.

SECT.

## SECT. III.

### *Kinds of Truth.*

Different degrees of certainty are eſtabliſhed by the application of Evidence: ——

—Intuition and Perception: ——
  —Perſonal Identity.
  —Intellectual Powers.
  —Axioms.
  —Material Objects.
—Demonſtration, ——
  —in Metaphyſics.
  —in Mathematics.
  —in Phyſics.
  —in Ethics.

—Proof approaching to Demonſtration: ——
  —Facts.
  —Events.
—Probability: ——
  —Partial knowledge of effects and cauſes in Nature.
  —Calculation of chances.
  —Analogical reaſonings.

The different ſciences require different kinds of evidence, and afford correſponding degrees of certainty.

The uſes of Evidence in the buſineſs of life chiefly appears in the application of Municipal laws.

The objects of Municipal laws are Rights and Crimes.

Philoſophical analyſis of the evidence ——

—of Rights.

—of Crimes.

# CHAP. III.

## Art of Criticiſm.

### SECT. I.

### *Object and Origin of the Art.*

The object of the Art of Criticiſm is to furniſh rules for judging in the Fine Arts.

The productions of the Fine Arts of Antiquity afforded objects and deſcriptions, which forcibly addreſſed the human feelings and imagination.

The obſervations of philoſophers on the character of theſe objects and deſcriptions, have been conſidered as rules, and the application of them termed *the Art of Criticiſm.*

This art early acquired degrees of perfection; for the critics copied from artiſts, who had copied from Nature.

Like the philoſophers, the critics haſtened to form ſyſtems.

Their ſyſtems continued, miniſtering to the elegant pleaſure of judging in the Fine Arts, when the Arts themſelves, like Philoſophy, ceaſed to be inventive.

With the Fine Arts of Antiquity the Rules of Criticiſm revived.

Theſe rules were implicitly copied, until true Philoſophy brought back the attention of mankind to the obſervation of Nature.

This art, like every other, requires its ſcience to analyſe and improve it.

The ſcience muſt conſiſt in the obſervation and arrangement of the objects in Nature and Art which pleaſe.

Theſe objects addreſs the eye and the ear in the firſt inſtance, but derive their character and refinements from their effects on the paſſions and imagination.

The faculty which diſcovers theſe objects has been termed *Genius*.

The faculty which feels their effects has been termed *Taſte*.

## SECT. II.

### *Of the Faculties of Genius and Taſte.*

The faculty of diſcovering the arrangements of Nature, and of Art, which allure the imagination, excite the paſſions, and influence the heart, is Genius in its connection with Taſte.

Senſibility to theſe finer arrangements of Nature, and of Art, when directed by a cultivated underſtanding, gives riſe to the moſt perfect Taſte.

Hiſtory of Syſtems, reſpecting the nature of theſe faculties.

Analyſis of the conſtituents—

—of Original Genius.

Analyſis of the conſtituents——

—of a Correct Taſte.

—of a Delicate Taſte.

The variety of Taſte referred to different claſſes of cauſes:——

—Natural Senſibility.

—National Objects.

—Degrees of Civility.

—Progreſs of Science.

The operations of the faculty of Taſte, and the ſources of its pleaſures, are explicable only by an analyſis of the objects which excite and improve it.

SECT.

## SECT. III.

### *General Objects of Taſte.*

The general objects of Taſte are the Fine Arts : ——

—Muſic.
—Poetry.
—Sculpture and Painting.
—Architecture.

The ſcience of obſerving Nature, applied to analyſe the conſtituents of Genius in the Fine Arts, and the circumſtances which form a taſte for their productions.

## SECT. IV.

### *Particular Object of Taſte.*

The particular object of Taſte is Compoſition, or the *Belles Lettres.*

Compoſition conſiſts in directing Language and Style to the proper deſcription and communication of knowledge, and of feelings.

Grammar explains the ſcientific principles of the language of compoſition.

Rhetoric, the principles of Style, under the influence of Taſte.

In Style, the imagination and paſſions unite with the underſtanding in creating the figures of Language.

Analyſis of the figures from the Imagination : ——

—Simile,
—Metaphor,
—Allegory,
—Antitheſis,
—Amplification,
&c.

Analyſis of the figures from the Paſſions : ——

—Hyperbole,
—Perſonification,
—Apoſtrophe,
—Interrogation,
—Exclamation,
&c.

The variety of Language, from plain deſcription to the picturesque, and animated uſe of figures, forms the different characters of Style.

## SECT. V.

### *Characters of Style.*

Every ſubject has a ſtyle ſuited to its nature, and application to the buſineſs of life.

The characters of Style cannot be analyſed by arbitrary diſtinctions.

They are ſuſceptible of analyſis only, by the nature of the ſubjects deſcribed.

Style——
- —in the Sciences.
- —in Hiſtory.
- —in Oratory.
- —in Poetry.

## SECT. VI.

### *Uſes of the Science of Criticiſm.*

The ſcience of Criticiſm reſtores the rules for judging in the Fine Arts to a reliance on the phenomena in thoſe arts.

The ſcience of Criticiſm habituates the mind to accurate analyſis and chaſte compoſition.

The ſcience of Criticiſm, by uniting obſervation and taſte, gives to the Philoſopher the pleaſures of the Fine Arts, and to the Man of Taſte, the accuracy of Philoſophy.

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# FIRST PRINCIPLES

# OF

# PHILOSOPHY.

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## PART II.

### *General Arrangement.*

THE First Principles of Philoſophy apply to all the ſubjects of philoſophical inquiry and knowledge.

These ſubjects are, Nature, and the Progreſs of Diſcovery.

The application to Nature ſhould diſplay the proper ſubjects of Philoſophy, in the order in which they are fitted to ſolicit the human underſtanding.

The application to the Progreſs of Diſcovery ſhould diſplay the ſame ſubjects, in the order in which the knowledge of them has alternately fluctuated, from rudeneſs to refinement.

From this introduction to a liberal education, every ſtudent may ſelect the objects which are ſuited to his peculiar genius and taſte, or to his buſineſs in life.

The character of the ſubjects offers a ſimple arrangement of them.

1. Application of the Firſt Principles of Philoſophy to the ſtudy of Nature.
2. The Hiſtory of Philoſophy.

# I.

# APPLICATION of the Firſt Principles of Philoſophy to the Study of Nature.

## INTRODUCTION.

### I.

### *Object and Progreſs of this Science.*

The object of applying the Firſt Principles of Philoſophy to the ſtudy of Nature, is, to give a view of the proper and uſeful ſubjects of inquiry, with the method of obtaining a knowledge of each particular branch.

The arrangements and rules of the ancients not ſuited to theſe ends.

The arrangements were the productions of elegant imagination, not of obſervation of Nature.

The rules accommodated Nature to Logic and Syſtem, not Logic and Syſtem to Nature.

The Schools copied the logic and ſyſtems, but not the elegant arts and taſte, of the ancients.

Examples of ſucceſsful diſcovery in Mathematics, Natural Philoſophy, and Natural Hiſtory, not only pointed out the ſcience of obſerving Nature, but afforded a view of the ſubjects to which that ſcience can be directed.

The explanation of this ſcience was firſt offered in the writings of Lord Bacon.

The numerous diſcoveries made ſince Lord Bacon wrote, furniſh examples for attempting the application of it to the ſtudy of the various aſpects of Nature and of Art.

Lord Bacon's philoſophy gave the ſubjects and rules which directed to the great modern diſcoveries.

The application of the ſcience of obſervation to the ſtudy of Nature, muſt deduce its ſubjects and rules from the ſpirit of theſe diſcoveries.

## 2.

### *Arrangement.*

1. Philoſophical arrangements of Lord Bacon.

2. Philoſophical arrangement for the ſtudy of Nature.

# CHAP. I.

## Philoſophy of Lord Bacon.

### *Object and Arrangement of Lord Bacon's Philoſophy.*

The general object of Lord Bacon's Philoſophy, is to connect the reaſoning powers of man with experiments for the improvement of Natural Knowledge.

The powers of human reaſon had long been directed to falſe ſubjects of inquiry, and entangled in the ſubtilties of artificial arguments.

To create a juſt taſte for philoſophical inveſtigation required,

1. A diſplay of the true, that they might be diſtinguiſhed from the falſe ſubjects of inquiry.

2. Scientific rules, to direct the human mind in diſcovering the laws of Nature.

Lord Bacon's diſplay of the ſubjects of inquiry, will explain the ſituation of Philoſophy at the revival of learning, and ſhow an ingenious and comprehenſive plan for its reformation.

His rules will expoſe the effects of a falſe logic on the ſtudy of Nature, and ſhew the method which has produced the great modern diſcoveries.

This Philoſophy is divided into two great branches:

1. A *Proſpectus* of the ſubjects of Human Knowledge *.
2. The Art of Induction, or of interpreting Nature †.

## SECT. I.

### *Proſpectus of Human Knowledge.*

Lord Bacon's *Proſpectus* of Human Knowledge requires the following explanations.

1. An analyſis of the theory on which the diſtribution of its ſubjects reſts.

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* Vid. De dignitate et augmentis Scientiarum.

† Vid. Novum organum Scientiarum.

2. The views which this philoſopher gave of theſe ſubjects, with the means which he ſuggeſted for improving them.

3. A ſketch of the degrees in which Inductive Science has corrected, or left defective, theſe different and varied articles.

### *Theory.*

Man derives his knowledge from the faculties of Memory, Imagination, and Reaſon : ——

—Memory, ——Hiſtory.
—Imagination, ——Poetry.
—Reaſon, ——Science.

## *Proſpectus.*

### *Hiſtory.*

Natural.——Civil.

Natural:——

—Productions of Nature.

—Peculiarities of Nature.

—Arts, or uſes of Nature.

Civil:——

—Eccleſiaſtical Inſtitutions, &c.

—Literary, or the Progreſs of Arts and Sciences.

—Civil limited, or the Revolutions of Societies.

### *Poetry.*

—Narrative, or Heroic.

—Dramatic Repreſentations.

—Allegorical Inſtructions.

*Science.*

Sacred Theology.——Philoſophy.

Philoſophy:
Divine,—Natural,—Human.

Divine:——
—Natural Theology.

Natural:——
Speculative, Practical, Mathematical.
Speculative:——
—Phyſics, or Efficient Cauſes.
—Metaphyſics, or Final Cauſes.
Practical:——
—Mechanics, or Experiments on uſeful Arts leading to general laws of Nature.
—Chymiſtry, or Rational Magic.

Mathematics:

*Science continued.*

Mathematics : ——
- —Pure.
- —Mixed.

Human : ——
- Body,—Mind.

Body : ——
- —Arts of Medicine, &c.

Mind : ——
- —Logic : —
  - —Arts of Inquiry.
    - —Judgement.
    - —Memory.
    - —Elocution.
- —Ethics : —
  - —Arts, of cultivating the Moral Principle.
  - —of applying it to the offices of Civil Society.

Analyſis of the merits and defects of the Theory and *Proſpectus.*

*M. D'Alembert's* imitation of them examined *.

## SECT. II.

### *Art of Induction, or of interpreting Nature.*

The object of the art of Induction is, to direct the human underſtanding in diſcerning the Laws of Nature in the various articles of the *Proſpectus.*

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* Vid. Melanges de Litterature.

It is divided into the Preparatory and Scientific branches.

The Preparatory branch deſcribes the diſpoſitions required for the ſtudy of Nature.

Theſe diſpoſitions refer to the characters of the mind that is fitted to begin the ſtudy of Nature, to the characters of the objects which it is to obſerve, and of the leſſons which it is to ſtudy.

In conformity to theſe views, the diſpoſitions required for the ſtudy of Nature are divided into two articles, given in the form of rules.

1. Rules for rendering the Mind a *tabula raſa*, on which the hand of Nature is to write by obſervation and experiments,

and for expelling the prejudices which have retarded the progreſs of the uſeful Sciences and Arts.

Prejudices ——
- —common to the ſpecies.
- —peculiar to every individual.
- —from verbal diſtinctions.
- —from the authority of ſyſtems of Philoſophy.

2. Rules for diſtinguiſhing the ſyſtems of the Sophiſt, Empiric, Dogmatiſt, &c. which are the falſe objects and methods of Philoſophy, from the ſubjects that admit of obſervation and experiment, which are the true objects and method of Philoſophy.

The Scientific branch offers rules for making real diſcoveries in Nature, and for applying them to the buſineſs of life.

1. Rules for forming the Hiſtory of Nature, by the application of the Senſes ſimply, or aſſiſted by ſuch Arts as will fully diſcriminate Phenomena, and exhibit the arrangements of Nature.
2. Rules to aſſiſt the memory in arranging Phenomena into Tables, where the Interpreter is to reduce Laws of Nature to Practical Arts, and riſe from Practical Arts to Laws of Nature, by a general Induction.

3. Rules for reconciling theory and practice, by forming axioms from experiments, and new experiments from axioms, by the aid of Reaſoning.

The merits of the art of Induction are to be eſtimated by the ſtate of Philoſophy when it was invented.

There were few, if any examples of Sciences, in which the method of diſcovering, or Induction, could be read in actual diſcoveries.

Theſe obſervations are juſtified by the effects of this art.

## SECT. III.

### *Effects of the Art of Induction.*

The effects of this new method of interpreting Nature appear in particular diſcoveries, and in the public Taſte for the Sciences and Arts.

The effects on particular diſcoveries ſtated in the progreſs of——

—Mathematics.

—Natural Philoſophy.

—Natural Hiſtory.

The Sciences to which it has not been applied remain ſubjected to Hypotheſis and Syſtem.

This appears in the ſtate of——
—Phyſiology.
—Pneumatology.
—Ethics.

The effects on public Taſte appear in the imitations of Lord Bacon's plan of eſtabliſhing a ſociety for the improvement of Natural Knowledge *.

His New Atlantis ſeems to be the model on which the Societies and Academies of Europe have been formed.

Though this new Philoſophy has been ſucceſsfully applied, as the means of making diſcoveries in particular Sciences and Arts, it has not been formed into an elementary Science for promoting the ſtudy of Nature.

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* See New Atlantis.

## CHAP. II.

## Philoſophical Arrangement for the ſtudy of Nature.

### *Theory.*

The progreſs of the Mind in the acquiſition of knowledge, affords the following Theory for the ſtudy of Nature.

When we obſerve phenomena, and collect facts, we form a Hiſtory.

When we diſcover the nature and relations of phenomena and of facts, we acquire a Science.

When we apply the reſult of Science, as rules of conduct, we practiſe Arts.

Hiſtory, Sciences, and Arts, appear to be a diſtribution of Nature, ariſing equally from the character of the ſubjects, and of our faculties, in acquiring a knowledge of them.

The application of the Firſt Principles of Philoſophy to form a Hiſtory of Nature, is the Philoſophy of that Hiſtory.

The application of the Firſt Principles of Philoſophy to aſcertain the Laws and the Theories which obtain in each branch of the Hiſtory of Nature, is the Philoſophy of the Sciences.

The application of the Firſt Principles of Philoſophy to trace the manner in which the Laws of the Sciences explain and improve the Arts for the buſineſs or pleaſures of life, is the Philoſophy of the Arts.

## SECT. I.

### *Philoſophy of Hiſtory.*

The Philoſophy of Hiſtory conſiſts in an application of the principles which diſcriminate the great departments of Nature, and render each of them the ſubject of a ſcience.

This Philoſophy will require,

1. An obvious deſcription of the phenomena and facts in each branch.

2. A ſketch of the progreſs of improvement in that branch.
3. An application of Philoſophical principles, viz.——
   - —Analyſis, to diſcover the qualities of phenomena.
   - —Arrangement, to diſtinguiſh the claſs, or department in Nature.
   - —Evidence, to aſcertain the accuracy of the analyſis and arrangement, which render each branch of the Hiſtory of Nature the foundation of one, or more Sciences.

The principal ſubjects in the Hiſtory of Nature, to which this

Philoſophy is to be applied, will appear in the following Table.

The Principles of Arrangement are marked at each ſubject of Hiſtory; the correſponding Sciences will occur in the Table of the Sciences.

Hiſtory of Nature.

1. Intelligent Beings.
2. Material Phenomena.

1. Intelligent Beings:

Deity, —— Man.

Deity: ——
    — Exiſtence.
    — Government.
Man: ——
    — His Natural Hiſtory: ——
        — Body arranged by —
            — Structure.
            — Growth and Decay.
            — Tendencies.

*Hiſtory of Nature continued.*

—Mind :—
—Faculties.
—Progreſs and Decline.
—Tendencies.
—Civil Hiſtory :——
—Governments,
—Their Liberty.
—Civil Laws,
—Their Juſtice.
—Public Economy,
—Its Utility.
—Literary Hiſtory :——
—Arts, }
—Sciences, } :——
—Their Nature,
—— Chronology.
—Eccleſiaſtical Hiſtory :——
—Natural Religion,
—Its Morality.
—Poſitive Inſtitutions,
—Their Morality.
—— Chronology.

2. Material

*Hiſtory of Nature continued.*

2. Material Phenomena.

Particular:——
- —Animals:——
  - —Structures.
  - —Propagation and Nutrition.
  - —Tendencies.
- —Vegetables:——
  - —Structure.
  - —Propagation and Nutrition.
  - —Uſes and Effects.
- —Minerals:——
  - —External Appearances.
  - —Intrinſic Qualities.
  - —Uſes and Effects.

General:——
- —The Earth, }
- —The Syſtem of Nature, } :——
  - —The general qualities of Matter.
  - —The relative degrees of Extenſion and Motion.

## SECT. II.

### *Philoſophy of the Sciences.*

The Sciences ariſe from the Hiſtory of Nature.

The Sciences extend and explain the Hiſtory of Nature.

The Philoſophy of the Sciences conſiſts in an application of the principles which diſcover the laws of Nature in each department.

This Philoſophy requires,

1. An obvious deſcription of the connection ſubſiſting betwixt the Hiſtory of Phenomena, and the Sciences which evolve the laws of Nature.

2. A ſketch of the ſucceſſion of Hypotheſes, offered to explain the Sciences.
3. An application of Philoſophical principles, viz.——
   - —Induction, to diſcover the laws of Nature.
   - —Theory, to ſhew the manner in which the laws of the Sciences become doctrines, that are the foundations of the Arts.

The principal Sciences, and their connection with the Hiſtory of Nature, will appear in the following Table.

Sciences.

1. Intelligent Beings.
2. Material Phenomena.

## *Sciences continued.*

### 1. Intelligent Beings.

Deity :——
—Ontology.
—Natural Theology.
Man :——
—Body :——
—Simple Anatomy.
—— Phyſiology.
—Mind :——
—General Logic :——
—Pneumatolgy.
—Analyſis and Induction.
—Metaphyſic.
—Pure Mathematics.
—General Ethics :——
—Morals,
—Juriſprudence, } :——
—Politics,
—Caſuiſtry of General Ethics.

2. Material

*Sciences continued.*

2. Material Phenomena.

Particular Phyſics :——
—Animals,——
—Comparative Anatomy;
—Vegetables,—— }: ——
—Botany;
—Minerals,——
—Mineralogy;
—Phyſiology.
—Chymiſtry.
—Mixed Mathematics :——
—Mechanics,
—Hydroſtatics, }: ——
—Pneumatics,
—Optics,
—Phyſical Aſtronomy.

SECT.

## SECT. III.

### *Philoſophy of the Arts.*

In the Sciences man is the interpreter of Nature.

In the Arts he makes uſe of the laws of the Sciences as inſtruments for the attainment of his ends.

The objects of the Arts ſuggeſt a diviſion of them.

The object of the Fine Arts is Pleaſure.

The object of the Liberal Arts is Knowledge.

The object of the Mechanical Arts is Utility.

In the Fine and Liberal Arts

the Philoſopher is directed by Principles.

In the Mechanical, the Artiſan implicitly follows rules in the practice, and in the ſubdiviſions of Labour.

The application of the laws of the Sciences to explain and improve the Arts, conſtitutes the Philoſophy of the Arts.

This Philoſophy requires,

1. An obvious deſcription of the ſubjects of the Arts.
2. An analyſis of the relation ſubſiſting betwixt the particular Arts and the Sciences which explain and improve them.

The principal Arts, and their reliance on their correſponding Sciences, will be explained by the following Table.

*Arts.*

Fine : ——

- —Muſic.
- —Poetry.
- —Sculpture and Painting.
- —Architecture.

Liberal : ——

- —General Logic : ——
  - —Arts of——
    - —Analyſis,
    - —Reaſoning,
    - —Criticiſm,
    - &c.
- —General Ethics : ——
  - —Arts ——
    - —of Legiſlation.
    - —of Political Economy.
    - —of good conduct in life.

*Particular*

## *Arts continued.*

### *Particular Phyſics.*

Anatomy,
Botany,
Mineralogy,
Chymiſtry, } : ——

—Arts of——
—Surgery,
—Pharmacy,
—Medicine,
&c.

—Arts of——
—Gardening,
—Agriculture,
&c.

*Mixed*

*Arts continued.*

*Mixed Mathematics.*

Mechanics,
Hydroſtatics,
Pneumatics,
Optics,
} : ——

—Arts——
  —of Architecture : ——
    —Civil,
    —Military,
    —Naval,
      &c.
  —of the Optician.
  —of the Perſpective Painter,
  —of the Geographer,
    &c.

### *Arts continued.*

### *Mechanical.*

The Arts, from Particular Phyſics, and Mixed Mathematics, are ſubdivided for the purpoſes of labour.

The ſubdiviſions of the Mechanical Arts are numerous, in proportion to the improvement of the Sciences, and the refinements of Civil Society.

## II.

# HISTORY of Philoſophy.

## INTRODUCTION.

### I.

### *Subjects of Hiſtory.*

Hiſtory records the events and diſcoveries which have characteriſed mankind in different ages.

Civil Hiſtory records the progreſs of Nations:

The Hiſtory of Philoſophy, the progreſs of Diſcovery.

The principal ſubjects of Civil Hiſtory are Religion and Government.

The principal ſubjects of the Hiſtory of Philoſophy are the Arts and Sciences.

The ſubjects of Civil Hiſtory form a neceſſary introduction to the Hiſtory of Philoſophy, becauſe they explain the cauſes which produce or retard diſcoveries.

The ſubjects of the Hiſtory of Philoſophy take a different order, from the order of the ſame ſubjects in Nature.

The order of Nature is from the Hiſtory of Phenomena, to Science, and to Art.

The order of the Hiſtory of Philoſophy is from rude Arts, to Sciences, and to the Hiſtory of Nature.

The application of the Firſt Principles of Philoſophy to theſe ſubjects, ſhould deſcribe the degrees of the obſervation of Nature, which have prevailed at different periods.

## 2.

## *Chronology of Hiſtory.*

The Chronology of Civil Hiſtory is the arrangement of events affecting nations according to the periods in which they actually happened.

The Chronology of Philoſophy is the arrangement of the Arts and Sciences according to the æras when they aſſumed new forms.

3.

## 3.

### *Arrangement of the Hiſtory of Philoſophy.*

1. Philoſophy and Letters previous to the riſe of the Grecian Free States.

2. Philoſophy and Letters from the riſe of the Grecian Free States, to the fall of the Roman Republic.

3. Philoſophy and Letters from the fall of the Roman Republic, to the revival of Learning in Europe.

4. Philoſophy and Letters from the revival of Learning, to the preſent times.

5. Reciprocal influence of Philoſophy and Civilization in their progreſs and decline.

## CHAP. I.

### Hiſtory of Philoſophy and Letters previous to the riſe of the Grecian Free States.

The articles of Civil Hiſtory, and of Philoſophy, in this period, form but one mixed ſubject.

We may conjecture reſpecting the ſtate of both by explaining the articles in the following Table.

1. Religion.

## 1. Religion.

Theiſm, — opinions reſpecting one Deity.

Polytheiſm, — opinions reſpecting a multiplicity of Deities.

Mythology, — fables of Prieſts, wrapt up in myſtery and magic.

## 2. Government.

Political Laws : ——

- — Ariſtocracy, or limited chiefships.
- — Theocracy, — Jewiſh.
- — Monarchy, — mixed, and ariſing from uſurpations and conqueſts, — Firſt Eaſtern.
- — Republics undefined, — Greek.

Civil

*Hiſtory, &c. continued.*

Civil Laws : ——
- —Uſages, or Law of Opinion.
- —Traditional and Written Precepts, conſidered as Municipal Laws.
- —Leagues, ariſing from national vicinity, and conſidered as the Law of Nations.

3. Arts and Sciences.

Fine Arts : ——
- —Poetry and Muſic, making but one Art.
  - —Eaſtern.
  - —Greek.
    - —Lyric.
    - —Elegiac.
    - —Didactic.
    - —Epic.

Uſeful

*Hiſtory, &c. continued.*

Uſeful and Mechanical Arts refining, but without Science.

Sciences, and Liberal Arts: ——

- — Coſmogony, — fabulous opinions reſpecting the origin of the World.
- — Conjectural Aſtronomy, — obſervation of the appearances and periods of the Stars, blended with hypotheſes reſpecting the Syſtem of Nature.
- — Aſtrology, — opinions concerning the influence of the Stars over the Deſtinies of Mankind.
- — Geometry, — limited.
- — Legiſlation in Greece, producing a ſpecies of Ethics.

—Rhapſody,

*Hiſtory, &c. continued.*

—Rhapſody,—the rehearſal of the favourite Greek poems, for the Education of Youth.
—Sophiſtry,—artificial rules for conducting public diſputes.
—Hieroglyphics, —pictures of objects.
—Alphabetical characters.

CHAP.

## CHAP. II.

### Philoſophy and Letters from the riſe of the Grecian Free States, to the fall of the Roman Republic. —

The Elegant Arts and Philoſophy of the Greeks appear in this period.

A falſe Logic, and their political ſituation, prevented important diſcoveries in the uſeful Sciences.

The ſpirit of their religion and governments was blended with their prevailing hypotheſes reſpecting Nature.

Theſe obſervations will be explained by the articles in the following Table.

### 1. Religion.

Oracles and Divination.
Polytheiſm of the Vulgar.
Mythology of the Prieſts.
Superſtitious Theiſm of the Philoſophers.

### 2. Governments.

Political Laws:——
— Monarchies, — ſometimes hereditary, ſometimes uſurped, frequently from conqueſt; Aſſyria, Egypt, Perſia, Macedon.
— Republics mixed,—Greece, Carthage, Rome.

*Hiſtory continued.*

Civil Laws : ——
  — Municipal Inſtitutions, — chiefly of free States.
  — National Uſages and Leagues, conſidered as the Law of Nations, but without reference to any general or refined Moral Principles.

3. Arts and Sciences.

Fine Arts : ——
  — Muſic : ——
    — Eaſtern.
    — Greek.
  — Poetry : ——
    — Lyric,
    — Epic,
    — Dramatic,
      &c.

— Sculpture

*Hiſtory continued.*

—Sculpture and Painting:—
—Greek.
Architecture: ——
—Eaſtern.
—Greek.
Uſeful or Mechanical Arts improved by conſiderable degrees of Science.
Liberal Arts: ——
—Rhetoric,—leſſons for the improvement of Oratory and Compoſition.
—Artificial Logic,—the Categories, and Syllogiſtic Art.
—Metaphyſics,——Abſtract Subtilties.
—Geometry,—a Science.
—Arithmetic limited, from the uſe of Letters for Units.

—Medicine,

*Hiſtory continued.*

—Medicine, with Syſtems of Empirics and Dogmatiſts.

Sciences: ——

—Natural Hiſtory limited, but without ſyſtems.

—Phyſics and Aſtronomy with ſyſtems.

—Ethics with ſyſtems.

### 4. Sects.

Italic ſchool, and ſchool of Pythagoras: ——

—Eleatics, —Zeno the Elean.

—Sceptics, —Pyrrho.

—Epicureans, —Epicurus, &c.

*Hiſtory continued.*

Ionic ſchool, and ſchool of Socrates : ——

—Academics, — Plato,
—Peripatetics,—Ariſtotle,
—Stoics, — Zeno of Citium,
&c.

## CHAP. III.

### Philoſophy and Letters from the fall of the Roman Republic to the revival of Learning in Europe.

In this period the prevailing ſects mingled their hypotheſes with the doctrines of Religion, and made a ſuperſtitious Theology the principal end and object of their Philoſophy.

The ſpirit of the governments explains the cauſes which contributed to the fall of Ancient Arts and Wiſdom.

The following Table will afford Titles for explaining theſe ſubjects.

### 1. Governments.

Political Laws: ——

—Roman Deſpotiſm,—abſolute and extenſive.

—Barbarian Eſtabliſhments, —from conqueſts.

—Feudal Syſtem,—monarchies, military, and limited by ſubordinate orders.

—Eccleſiaſtical Hierarchy,—temporal and ſpiritual uſurpations of the Church.

—Commercial Governments, —from the emancipation of the people, by the introduction of arts and of trade.

Civil

*Hiſtory continued.*

Civil Laws :——

—Roman Juriſprudence,—compiled by the order of the Emperor Juſtinian, from the Inſtitutions of Greece and Rome, from the Doctrines of Philoſophers, and the Opinions of Lawyers.

—Feudal Laws,—the regulations for the adminiſtration of Juſtice in the courts of the Fœdal Monarchs, and of their Barons.

—Canon Laws,—a compilation of Church Inſtitutions, in imitation of the Roman Juriſprudence.

—Municipal

*Hiſtory continued.*

—Municipal Inſtitutions,— the Common Laws of the ſettled European States.

2. Arts and Sciences.

Fine Arts:—
- —Poetry:—
  - —Laſt Greek.
  - —Laſt Roman.
  - —Firſt Italian.
- —Muſic:—
  - —National.
  - —Artificial, or Italian.
- —Sculpture and Painting:—
  - —Italian.
  - —Flemiſh.
- —Architecture:—
  - —Gothic.
  - —Greek.

Uſeful

*Hiſtory continued.*

Uſeful or Mechanical Arts with inferior degrees of Science.

Liberal Arts : ——

—School Logic, —Ancient Greek Logic, debaſed and corrupted by the introduction of Monkiſh jargon.

—Metaphyſic, —the abſtract ſubtilties of the Greeks, blended with the myſtical diſputes of the Prieſts.

—Caſuiſtry,—caſes of merit and demerit, argued and adopted by the Prieſts.

—Arabian Arithmetic,—ſimple, from the invention of cyphers for units.

—Greek

*Hiſtory continued.*

— Greek Geometry, — not from the original, but from the Arabian tranſlations.

— Art of Medicine, with the ſyſtems of Galeniſts and Chymiſts.

— Arts of ——
 — Engraving.
 — Printing.

Sciences : ——
 — Natural Hiſtory : ——
  — Arabian, partly original, chiefly copied from the Greeks.
  — Revived Greek.
 — Phyſics and Aſtronomy,—
  — Revived Eaſtern and Greek.
 — Firſt Modern Diſcoveries.
 — Ethics of the Sects.

*Hiſtory continued.*

### 3. Sects.

Druids, or Celtic Prieſts and Bards.

Sects of the Jews, formed from an intermixture of Jewiſh tenets with the doctrines of the Greek ſects.

Syncretiſts, Platonics, and Ancient Eclectics, who ſelected from every ſyſtem, and propoſed to inſtitute one perfect and univerſal Philoſophy.

Firſt Schools, or Monaſtics in Cathedrals, inſtituted for the education of churchmen,—taught the School philoſophy,—gave riſe to the ſects of Nominaliſts and Realiſts.

Arabian

*Hiſtory continued.*

Arabian Philoſophers, who both copied from the Greeks, and were diſtinguiſhed by their own diſcoveries.

Revived Greek ſects in Italy.

Second Schools, or Univerſities, where the doctrines of the diſtinguiſhed Greek ſects were taught.

Second, or Modern Eclectics, who were to ſelect from no ſyſtem, but to obſerve Nature.

## CHAP. IV.

## Philoſophy and Letters from the revival of Learning to the preſent Times.

In this period the proper ſubjects of Taſte and Philoſophy were perceived, and ſeparated from thoſe of Civil Hiſtory.

The ſpirit, however, of the governments of the preſent European States, with the numerous objects which they offer to invention and induſtry, have operated in different degrees as cauſes of the preſent public Taſte for the Arts and Sciences.

Theſe obſervations will be illuſtrated by explaining the following Table.

### 1. Governments.

Political Laws : ——
- — Monarchies : ——
  - — Abſolute and hereditary, — France, Spain, &c.
  - — Mixed, by the diviſion of the Sovereignty betwixt the Monarch and the other orders of the State, — Britain.
- — Republics : ——
  - — Mixed, from the hereditary ranks of Chief Magiſtrates and Nobility, — Italian Republics, Holland, &c.

*Hiſtory continued.*

Civil Laws : ——

—Municipal Inſtitutions,—perfect or defective, in proportion to the liberties and reſources of a people.

—Law of Nations,—appealing to the refined Moral Principle of National character.

2. Arts and Sciences.

Fine Arts : ——

—Poetry : ——
  —Italian.
  —French.
  —Britiſh.
—Muſic : ——
  —National.
  —Artificial, or Italian.

Sculpture

*Hiſtory continued.*

Sculpture and Painting :——
    —Italian.
    —Flemiſh.
    —French.
    —Britiſh.
—Architecture :——
    —Gothic.
    —Greek.

Mechanical and Liberal Arts,—reducing to a dependence on the Sciences which create and improve them.

Sciences :——
—Logic :——
    —Analyſis and Induction.
—Pure Mathematics :——
    —Geometry.
    —Arithmetic.

*Hiſtory continued.*

—Algebra, or contracted Cyphers, invented by the Arabs, and applied to facilitate Geometrical Demonſtrations.

Natural Hiſtory : ——

—Anatomy,
—Botany,
—Mineralogy,
—Chymiſtry,
} : ——

—Theory and Practice of Medicine.

Phyſics : ——

—Mechanics,
—Hydroſtatics,
—Pneumatics,
—Optics,
} : ——

—Aſtronomy.
—Geography.

—Newtonian

*Hiſtory continued.*

—Newtonian Syſtem of Univerſal Gravitation.

Ethics:——

—Moral Philoſophy,—refining by Theories rather than by Science.

—Juriſprudence,—refining by Theories and Syſtems.

—Politics,—ſubjected to Theories and Syſtems.

### 3. Sects.

Scholaſtics,—Diſciples of the Greek ſects.

Carteſians, or ſubverters of the Scholaſtic doctrines, and inventors of a new Theory of the Human Mind.

Metaphyſicians,——Speculative Theoriſts.

Moraliſts, who have offered Theories to explain the Principles of Human Action.

CHAP.

# CHAP. V.

## Reciprocal influence of Philoſophy and Civilization in their progreſs and decline.

Nations have a progreſs, from rude inſtitutions, to the government of laws, and the refinement of manners.

Philoſophy furniſhes the correſponding articles of rude arts, ſpeculations, uſeful diſcoveries, and a public Taſte for the Arts and Sciences.

1. What have been the effects of the different kinds of Philoſophy on the Human Mind?

2. What have been the effects of Civil Inſtitutions on Philoſophy, and of Philoſophy on Civil Inſtitutions?

3. What have been the reciprocal effects of both on the manners of mankind?

THE END.